

Before the Federal Communications Commission
Washington, D.C. 20554

In the Matter of

Appropriate Framework for Broadband Access)	
to the Internet over Wireline Facilities)	CC Docket No 02-33
)	
Universal Service Obligations)	
of Broadband Providers)	
)	
Computer III Further Remand Proceedings:)	
Bell Operating Company Provision of)	
Enhanced Services; 1998 Biennial)	CC Dockets Nos 95-20
Regulatory Review - Review of Computer III)	98-10
and ONA Safeguards and Requirements)	

COMMENTS

I strongly object to the FCC's proposed de-facto deregulation of all Internet or digital delivery systems by reclassifying them as 'information' rather than 'telecommunications' services.

I strongly object to the requiring of all such 'services' including Wireless ISPs to pay into the Universal Service Fund.

Since these two proposed actions - while apparently unrelated - will so detrimentally will affect large numbers of small and novel Internet Service Providers - ISPs, that I will deal with them together.

In all my comments and considerations I go back to the first legal direction and goal set by Congress in the 1996 Telecommunications Act, and most especially this charge which you quote, but I contend is not being fulfilled.

"In this proceeding, we are guided by the following principles and policy goals: First, it is the Commission's primary policy goal to encourage the ubiquitous availability of broadband to all Americans. Indeed, Congress has explicitly charged the Commission to "encourage the deployment on a reasonable and timely basis" of broadband capabilities to "all Americans," and gave the Commission authority to "take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment," if necessary. "

The operative words here are 'ubiquitous availability to ALL Americans,' '...on a timely basis' and 'accelerate deployment...by removing barriers to infrastructure investment'

Part I - Defacto Deregulation

I hold that the proposed actions of this NPRM virtually insure that broadband will NOT be available to ALL Americans in the foreseeable future, rather than on a 'timely' basis, and that rather than 'removing barriers' to infrastructure investment, the relabeling of all telecommunications services which hitherto have been compelled by the FCC to make their networks accessible to all other services will have the direct effect of letting those large, dominant LECs who have shown the least capability of extending the Internet to all destroy all competition from those smaller innovative ISPs including, especially, wireless

services who are carrying out the mandate of Congress far better and in far more remote places than the LECs ever have or ever will.

Previous actions by the FCC intended to foster competition within and between ILECS and smaller or more regional CLECS in the matter of basic telecommunications services has utterly failed. This is so widely known it requires no documentation here by me. CLECS have been driven out of business in droves, DSL companies have been forced into bankruptcy by the actions of the larger carriers, consolidation by ILECS has reduced the United States to only three regional carriers from the original 7 that were formed by the first breakup of AT&T.

Now this series of proposed NPRM actions will, incredibly enough in view of that past record of FCC failure, extend the same intellectually bankrupt theories of regulation to the operation and growth of the Internet - which American circuit switched, centralized processing and control telephone companies neither invented, nor from its earliest days supported, and now will be put in a position to dominate and drive out of business the only telecommunications systems and services which have provided in the recent past the greatest amount of innovation, delivered the most cost-effective broadband services, and reached the most remote areas of America. Namely cable, digital wireless, especially license exempt technologies such as 802.11b radios, and two way Internet satellite services. It has been precisely these communications sectors which have come closest to fulfilling the Congressional mandates cited above, than all the ILECS put together.

And the FCC wants to deliver these promising technologies and different - from any historical telephone company - telecommunications business models into the hands of singular top heavy, monopoly-minded, obsolete technology ILECS? Enemies of the United States could do no better at insuring the United States development of ubiquitous data communications will be retarded than by the actions proposed in this NPRM. What are you thinking of?

Unfortunately, after 22 years of dealing with the ILECS, observing their behavior across other parts of the nation, while both establishing and using alternative communications technologies, operating my own small both wired, and wireless (including satellite) ISP company (since 1984, before there was an Internet per-se, but there were UUCP store and forward technologies) I know the answer to that question. There is a mind-set and belief system in Washington by those least experienced with the nature of the Internet and its driving technology TCP/IP, coupled with blind faith in pure marketplace-driven economics, and together with misplaced - and heavily lobbied 'protectionism' of intellectual property that makes policy makers from this Administration and its appointees actually think that companies as large as Verizon and Qwest are more capable because of presumed 'economies of scale' of delivering broadband Internet to every American, at the lowest costs, with the most benefits. And incidentally 'protect' intellectual property whose laws and practices flowed from one-way broadcast (print, broadcast radio, movies, television) technologies of the last 300 years, and which yet have properly been adjusted to the new forms of interactive, two-way, human communications made possible by high bandwidth, packet switching, digital Internet communications - carried over a VARIETY of media and not just the fiber and local loop copper of the telephone companies.

I challenge the unspoken assumptions that lie behind this NRPM. Namely that:

1. Simply because primarily one giant telephone company - AT&T - brought the United States one of the best voice telephone systems in the world over half a century of development, that clones of that technological as well as centralized business model heritage - such as Verizon and Qwest are equally capable of doing the same for the Internet. Rather than a multiplicity of smaller, innovative, highly dispersed, small market (especially in rural, and fringe suburban areas), digital (packet-switching, multi-modal (wireless, fiber, satellite, advanced copper, TCP/IP) interconnected (to each other and to the large national net carriers) companies. The revolutionary nature of the internet, which, coupled with the spread of ever more powerful personally owned computers as well as the revolutionary nature of high bandwidth spread spectrum radios, now permitted to be used on an unlicensed basis by the general public has turned the historic top-down, one-size fits all, voice telephone empires upside down.

The computing power is now at 'the edge,' not at the telephone company center. TCP/IP packet switched can transit a variety of media. Thus small companies can, and do, start up and offer ISP services in places large companies - with their high overhead, overblown expectations by public stockholders of 'return on investment' - will not go until, in their opinion the 'market is ready.' That kind of economic reasoning is why even DSL is not available in many large city fringe areas. While almost every small town in America has ISP wanna-be's, and many risk taking entrepreneurs plunge in. And many of those have already been able to use unlicensed Part 15 digital radios to deliver high bandwidth to rural and fringe areas where the telcos still will not go. Companies such as Prarie.net cover as many as 150 small Iowa towns, wirelessly. But all these companies require some form of 'upstream' connectivity at reasonable rates from larger carriers. My next item asserts that you, the FCC, will help kill off this innovative, small business entrepreneurship.

2. That if all regulation is removed from ILECs by the reclassification off any delivery of the Internet into 'information' services, that this will not encourage, as well as permit, any cross-country Internet backbone carrier to peremptorily cut off from access to its exchanges any 'smaller' ISPs that serve local areas, or parts of cities or rural areas where DSL services do not, and never will, exist. Large, stockholder ILECS motives are NOT driven by ANY consideration of the 'public interest' apart from their own economic interest. ILECs would be fools to permit, voluntarily, competitors to them - such as Wireless ISPs - to remain connected to their backbones. They will cut them off by mere refusal to let them connect, or price them in such a predatory manner they cannot do business with them. All this order to reduce consumers in these areas to only 1 choice, whatever the ILEC chooses to offer, and on its terms and whenever it feels like extending its service.

Part II - Collecting USF funds from Everybody

To be clear what my credentials are, and stake in this matter comes from, I will give the example of my own company - Old Colorado City Communications.

I started providing network services to dial up Colorado Springs, Colorado in 1984 - 18 years ago. This was long before the Internet. Using UUCP protocol, Unix servers, and dial up lines we ran a profitable small business for 5 years.

Using that model we were retained as consultants by Western Montana College, Dillon Montana, to try and provide affordable data connectivity to the 114 one room school houses in Montana. We successfully provided 'store and forward'

connectivity using Fidonet protocols from MSDOS school computers in 26 Montana small towns - where individual dial up to any ISP cost \$20 an hour via US West. We coupled that with UUCP store and forward from Dillon to our servers in Old Colorado City, which was connected upstream through local Hewlett-Packard. The whole system was called Big Sky Telegraph.

The hard reality was that we, and we alone, using such grassroots telecommunications technologies provided two way email, files, computer conferencing services to small rural schools at so low a combined rate, that the Montana Department of Education only had to pay between \$500 and \$600 TOTAL monthly to keep those 26 schools connected. US West was utterly incapable of providing any such services.

During that period - 1987-1991 - both in Montana and from the great demand put on our small company by other educators for our expertise in serving rural America at low cost, we got a full education on the value of small ISPs in comparison with the still-oblivious foresight or services of the larger telcos.

In 1989, we installed and operated the first 'Internet' service in Colorado Springs. We were connected upstream via US West local loop to Colorado Supernet - a Colorado upstream ISP service - via Frame Relay 56kbps connection.

When the Internet started to come in the late 1980s it was clear that, because one has to be 'continuously connected' when using the Internet for most activities, the 'store and forward' model would not work. If RURAL America was going to be connected in any sort of timely manner at affordable rates, wireless was going to have to be used

Our company learned how by using one of the first Part 15 915mhz license exempt radios - 128kbps Cylink - in Colorado Springs. We soon not only replaced the US West 'local loop' the 3 miles between our company and Colorado Supernet POP in downtown Colorado Springs, we were able to apply the same technology in rural Montana for full Internet access where US West could only supply extremely costly T-1 lines at rates up to \$2,000 a month. Utterly prohibitive.

By 1995 our company was considered so expert in applying wireless to rural or urban broadband-need situations, that we were awarded - between 1995 to 1999 a series of five unsolicited National Science Foundation grants totaling nearly \$2 million, to explore and report on the uses of Wireless for (1) rural education (2) 3d world (Mongolia) (3) Field Science by American's scientists and researchers.

We have subsequently mastered the uses and severe limitations (because of FCC rules on power and frequencies permitted) of Part 15 wireless devices for general broadband connectivity. We also encountered, and still do, the extreme reluctance of ILECs to (1) cooperate with wireless ISPs who seek to extend connectivity to rural places - schools, towns, businesses, local governments - where the ILEC can offer nothing (2) anti-competitive behavior by the ILECs.

During this period, on behalf of the 16,000 Public School Districts (84,000 individual schools, and 15,000 Public Libraries, we lobbied the FCC, dutifully formally Commented, and provided large volumes of hard experiential data on current and recent past successful uses BY SCHOOL SYSTEMS with wireless - in order to persuade the FCC to permit the purchase and deployment BY SCHOOL SYSTEMS Part 15 Wireless broadband radios using the Universal Service Fund 'e-rate' program. These appeals were made before and as part of the FCC decision process leading up to the Report and Order for the \$2.25 Billion E-rate program.

But incredibly, the FCC refused to allow such uses of the e-rate, in spite of the Congressional direction for providing 'broadband' in a timely manner. As a consequence, in spite of the BILLIONS in recurring Telephone Company data-line costs that would be saved if schools could connect up their various buildings wirelessly using Part 15 Radios, the ILECs (and in some cases CLECs') have continued for the past 4 years to be the SOLE BENEFICIARY of the e-rate USF funds.

Now let me get very specific in the case of my own Old Colorado City Communications service company in Colorado Springs, and the impact I am sure will happen if the NPRM proposals are enacted.

1. I provide broadband wireless services from our Westside Colorado Springs POP to 8 customers within 2 miles of our building. This is in an area where Qwest will not provide ANY DSL services, even though it is only 3 miles from their central offices.
2. I ALSO provide broadband (10mbps) service via Ethernet to 10 small (1 to 2 person) businesses inside the same building as our POP.
3. I ALSO provide dialup modem ISP services to less than 100 customers
4. I ALSO provide, pro-bono, wireless T-1 services to a non-profit Museum and Historical Society.
5. My entire operation is connected to Cable&Wireless upstream high speed Internet by WIRELESS - bypassing the costly, unreliable, Qwest, local loop the 3 miles downtown.
6. Half our time has to be spent, under contract with the National Science Foundation to the modeling of wireless for biological and environmental science in the rain forests of Puerto Rico, the glacier country of Alaska, the northern wooded lake country of Wisconsin, and the offshore islands of Chesapeake Bay. So our company is NOT 'just' an ISP.

If the FCC foolishly carries out the proposed de-regulation of Qwest from providing me dial up modem services that they can cut off at any time, or make it prohibitively expensive so I will terminate the service, and forces me to pay into the Universal Service Fund, raising my costs to my customers AND imposing unbelievable bureaucratic financial reporting controls on my small ISP business - I will simply terminate ALL my customer services, leaving them high and dry. For the cost to EACH of them INDIVIDUALLY to get broadband from Qwest will be \$1,200 a month minimum for only T-1 speed, while I am able to provide them with true throughput of at least 5Mbps for \$60 a month!

And it is my firm conviction, that even if I chose to stay in business and pay into the USF fund that NO wireless ISP would EVER be the beneficiary of such funds in extending broadband to rural or high-cost areas. The precedence of the disbursements of the e-rate so far is proof enough for me.

I have spent 10 years trying to separate my company's operations from dependency on the ILECs. And I do NOT want to be forced to continue to subsidize them now! I, and thousands of other wireless ISPs HAVE been capable of extending broadband to rural America WITHOUT subsidies, while the ILECs have utterly failed to do so WITH subsidies. Why should we pay for their continued failures?

And being in direct contact with at least 50 of the 5,000 or more Wireless Rural ISPs on their maillists, and through the Wireless Communications Association, I am aware and informed by them that they too will have to reconsider even staying IN business in rural America. And when they shut down their customers will have NO broadband.

If that in ANY WAY furthers the Congressional directive for 'ubiquitous', 'timely' broadband to ALL AMERICANS or in any way 'removes barriers' to broadband investment, I'll be damned if I can see it. You have utterly, in this NPRM analyses failed to prove either will happen.

And I will be glad to testify to the FCC on this item, though I am sure neither the FCC staff nor Commissioners have any interest in what I have to say that does not reflect the preconceptions and false premises that this NPRM 02-33 has been based upon.

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